

ABSTRACT

[0036] Methods and devices in accordance with the present invention can comprise forming an electrical feed-through assembly to provide a hermetic seal in a coaxial connector. In one embodiment, the electrical feed-through assembly comprises a conductive insert having a bore, a dielectric insert positioned within the bore having a first diameter sized such that an impedance of the dielectric insert is a target impedance, the dielectric insert having a center conductive pin extending there-through, and an air dielectric positioned within the bore, the air dielectric having a second diameter sized such that an impedance of the air dielectric is the target impedance, a portion of the air dielectric extending into the dielectric insert, wherein the portion of the air dielectric extending into the dielectric insert is a compensation gap.